WELCOME TO THE BIOLOGY MAJOR

If you are considering a **biology major or a pre-health profession like medicine** or some other health sciences, we strongly advise you to take both BIOLOGY 101 AND CHEMISTRY 107 in your first semester. These courses are offered only fall semester and begin a sequence. **We know that taking these two classes in the first semester challenges many first-year students. You will be asked to study harder and learn more than ever before, so you must be ready for the challenge.** You are welcome to meet and speak with a faculty member in the Biology Department to answer your questions about and preparation for the major.

(Please note, not all pre-health professions require beginning with both BIO and CHE. See Pre-Professional Interest section in the back of the *Adv. Reg. Manual.)*

Register for both BIO101 and CHE107 and two other courses if you fit this profile:

1. ACT of 25 or above;
2. A and B grades in high school biology and chemistry courses;
3. willing to work from day one – and willing to study hard and frequently. Plan to actively engage in all lectures and labs, to study and review material **7 days/week, at least 2 hours/day/class plus time for study groups.** You must be able to manage time well. Studying 1 or 2 days before the exam is not enough for these classes.
4. **commitment to/ passion for science** – don't bother if you are only casually interested or medicine is more of a lifestyle choice than an academic interest;
5. realize there is keen **competition** in these classes because there are many students who possess this commitment and passion toward biology – they know they need to do well from the very first semester.
6. keep in mind that you have 10 weeks into the 14 week semester to withdraw from a course if this combination turns out to be too much.

Register for one of the options below if you fit this profile:

1. ACT below 25;
2. low B's or C's in high school biology and chemistry;
3. casual commitment to BIO, CHE or health professions;
4. you take your involvement in athletics, music, student employment, or social activities more seriously than your biology studies and/or you have poor time management skills.

Options:

1. BIO101, CHE107, FTS plus .750 credits from MUS, HES, or T/D;
2. BIO101 plus three courses – see consequences below;
3. CHE107 plus three courses – see consequences below;
4. If you are interested in a **biochemistry and molecular biology major**, you should start with CHE107 and MCS121 (if calculus is the appropriate level for you) plus two other courses.

Consequences of these options:

1. On the positive side, the alternative option of taking only one science class might assure a good start in terms of grade point average for the semester.
2. You will be "off-track" and it may impair your choices as a junior or senior. If you are a BIO major starting with BIO only, the CHE sequence must be started in the sophomore year, so you must wait for BIO201 and BIO202 until your junior year because you need the chemistry courses as pre-requisites for BIO201 and BIO202. This can be done, and it's smart if you aren't certain of your commitment to the major, but it means that you will have more upper division courses in your senior year and it can be difficult to fit in study abroad (except January Term).
3. If you are a BIO major starting with CHE only, you begin your BIO sequence your sophomore year, and again, the same consequences are true as in #2 above.
4. If you are thinking of medicine, beginning slower might mean taking the MCAT in your senior year instead of your junior year, putting med school off for one year. If starting slower helps you establish a strong gpa, and positions you better for med-school, it's worth waiting one year. (Many students go to med school 1-4 years after college.)
5. You really can't count on finding summer school classes to catch up. It might be possible, but don't count on it.

If you are registering for BIO101 or CHE107 only to fulfill a NASP (natural science perspective in Curriculum I Liberal Arts Perspective), you should be aware of other courses that also fulfill the NASP requirement, not all of which are offered fall semester:
BIO100 – Explorations in Biology (non-biology majors)
CHE102 – Chemistry in Context (non-chemistry majors)
EDU246 and 247 – Science Elementary Education I and II (**for Elementary Education majors)**
GEG105 – Introduction to Physical Geography
GEG108 – Weather and Climate
GEO111 – Principles of Geology
PHY100 – Physical World (non-physics majors)
PHY102 – Astronomy/Cosmology (non-physics majors)
PHY104 – Sound and Music (non-physics majors)

Possible First-Year Program: Besides the listed courses, choose one or two courses from general education areas according to your choice of Curriculum I Liberal Arts Perspective or Curriculum II 3 Crowns Curriculum, or choose electives.

Fall	Spring
BIO101 Principles	BIO102 Organismal
CHE107 General Chemistry	CHE141 Organic Chemistry

Sample schedule of classes for a biology major
who also takes the two required chemistry courses in the first year

Fall Semester	***Spring Semester***
First Year	
BIO 101 Principles of Biology	BIO 102 Organismal Biology
CHE 107 Principles of Chemistry	CHE 141 Organic Chemistry I
FTS 101	Elective
Elective	Elective
Sophomore Year	
BIO 201 Cell and Molecular Biology	BIO 202 Evolution, Ecology, and Behavior
Elective	Elective
Elective	Elective
Elective	MCS 121 Calculus I *or*
	MCS 140 Elementary Statistics
Junior Year	
Upper-level BIO course*	Upper-level BIO course*
Elective	Elective
Elective	Elective
Elective	Elective
BIO 241 Invertebrate Zoology	BIO 242 Vertebrate Zoology
BIO 245 Conservation Biology	BIO 370 Ecology
BIO 372 Animal Behavior	BIO 373 Cell Biology
BIO 374 Genetics	BIO 380 Microbiology
BIO 376 Entomology	BIO 383 Developmental Biology
BIO 378 Plant Physiology	BIO 377 Plant Systematics
BIO 381 Immunology	BIO 385 Evolution
BIO 383 Aquatic Biology	BIO 386 Comparative Physiology
BIO 384 Neurobiology	BIO 388 Molecular Genetics
CHE 255 Biochemistry	CHE 255 Biochemistry
GEO 241 Paleontology	PSY 260 Introduction to Neuroscience
Senior Year	
Upper-level BIO course*	Upper-level BIO course*
Elective	Elective
Elective	Elective
Elective	Elective

*Four upper-level courses, at least three of which are at the 300-level, are required for the biology major.

Sample schedule of classes for a biology major
who does not take the two required chemistry courses in the first year

Fall Semester	***Spring Semester***
First Year	
BIO 101 Principles of Biology	BIO 102 Organismal Biology
Elective	Elective
Elective	Elective
Elective	Elective
Sophomore Year	
CHE 107 Principles of Chemistry	CHE 141 Organic Chemistry I
MCS 121 Calculus I *or*	Elective
MCS 140 Elementary Statistics	Elective
Elective	Elective
Elective	
Junior Year	
BIO 201 Cell and Molecular Biology	BIO 202 Evolution, Ecology, and Behavior
Elective	Elective
Elective	Elective
Elective	Elective
Senior Year	
Upper-level BIO course*	Upper-level BIO course*
Upper-level BIO course*	Upper-level BIO course*
Elective	Elective
Elective	Elective

BIO 241 Invertebrate Zoology	BIO 242 Vertebrate Zoology
BIO 245 Conservation Biology	BIO 370 Ecology
BIO 372 Animal Behavior	BIO 373 Cell Biology
BIO 374 Genetics	BIO 380 Microbiology
BIO 376 Entomology	BIO 383 Developmental Biology
BIO 378 Plant Physiology	BIO 377 Plant Systematics
BIO 381 Immunology	BIO 385 Evolution
BIO 383 Aquatic Biology	BIO 386 Comparative Physiology
BIO 384 Neurobiology	BIO 388 Molecular Genetics
CHE 255 Biochemistry	CHE 255 Biochemistry
GEO 241 Paleontology	PSY 260 Introduction to Neuroscience

*Four upper-level courses, at least three of which are at the 300-level, are required for the biology major.